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	Introduction of a Na+/H+ antiporter gene from Atriplex gmelini confers salt tolerance to rice.	/
PubMed Services	Ohta M, Hayashi Y, Nakashima A, Hamada A, Tanaka A, Nakamura T, Hayakawa T.	
	Plantech Research Institute, 1000 Kamoshida-cho, Aoba-ku, Yokohama, 227-0033, Kanagawa, Japan.	
Related Resources	We engineered a salt-sensitive rice cultivar (Oryza sativa cv. Kinuhikari) to express a vacuolar-type Na+/H+ antiporter gene from a halophytic plant, Atriple gmelini (AgNHX1). The activity of the vacuolar-type Na+/H+ antiporter in the transgenic rice plants was eight-fold higher than that in wild-type rice plants. Satolerance assays followed by non-stress treatments showed that the transgenic plants overexpressing AgNHX1 could survive under conditions of 300 mM Nation 3 days while the wild-type rice plants could not. These results indicate that overexpression of the Na+/H+ antiporter gene in rice plants significantly improve their salt tolerance.	ılt Cl
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